

**INTERNAL  
GEAR**



**REPLICATE**

**WE CAN MAKE THAT**

# Replicate Pumps

Replicate pumps are manufactured by a north american group with over 70 years of experience transforming metals and fluid handling. Products range includes general services, industrial and process pumps designed for a range of applications.



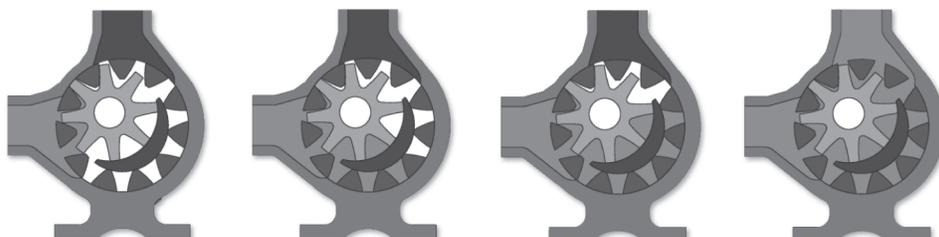
Design types manufactured under Replicate Brand: Internal Gear, Helical Gear, External Gear, Turbine and Centrifugal.

## Internal Gear

Internal gear pumps are positive displacement specially designed to handle high viscosity liquids. They are equipped whit casings that can be positioned to meet common piping configurations and they have only two mobile parts that make its maintenance easier.

## HOW IT WORKS

Liquid enters the suction port between the rotor and idler teeth. Liquid travels through the pump between the teeth of the "gear-within-a-gear" principle. The crescent shape divides the liquid and acts as a seal between the suction and discharge ports. The pump head is now nearly flooded, just prior to forcing the liquid out of the discharge port. Intermeshing gears of the idler and rotor form locked pockets for the liquid which assures volume control. Rotor and idler teeth mesh completely to form a seal equidistant from the discharge and suction ports. This seal forces the liquid out of the discharge port.

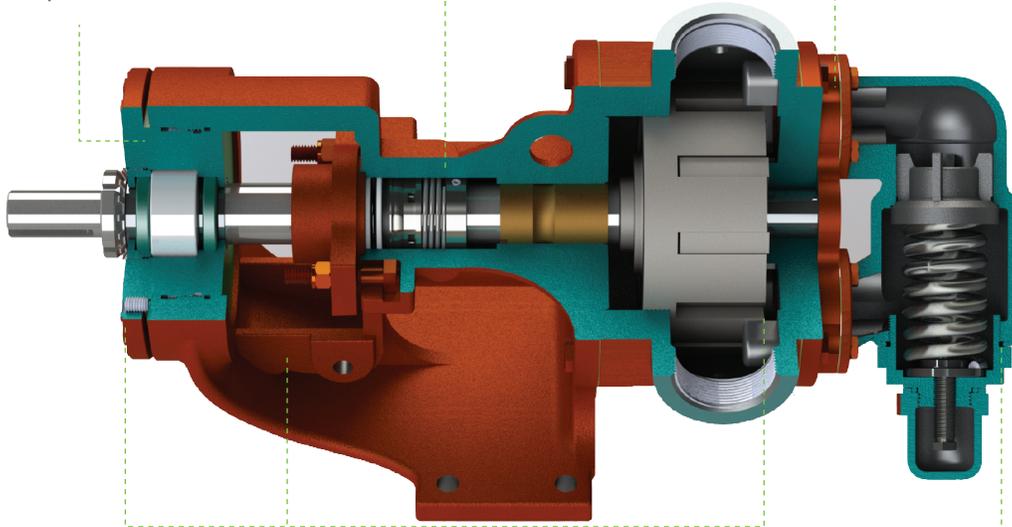


# REI SERIES

Threaded bearing housing. Its large diameter allows the cartridge mechanical seal installation (except on REI-AK and REI-AL models).

The stuffing box accepts packing, numerous component mechanical seals, or a wide variety of cartridge seals (except on REI-AK and REI-AL models)

The casing can be rotated in 45° increments permitting eight different port positions.



Rotor end clearance can be adjusted to compensate for wear or for higher temperatures or viscosities by rotating the threaded bearing housing.

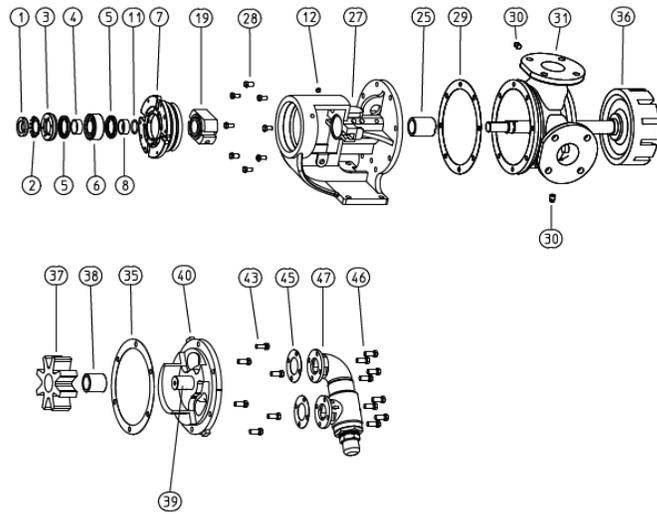
One-piece cast bracket provides rigid foundation to maximize seal and bearing life.

Internal relief valve standard to protect the pump.

## FEATURES

- 1.- The stuffing box on all sizes accepts packing, component single mechanical seals, or cartridge seals without modifications.
- 2.- Bearing housing provides easy rotor end clearance adjustment to compensate for viscosity or wear.
- 3.- One-piece Bracket minimizes deflection on shaft.
- 4.- Positive Displacement, Internal Gear pumping principle.
- 5.- Low maintenance cost.
- 6.- Main applications: These pumps are built to continuous or intermittent duty for such applications as circulating, transferring, or service in general industrial, petroleum uses.

# GENERAL EXPLODED VIEW



ITEM	DESCRIPTION
1.	Locknut
2.	Lockwasher
3.	End Cap for Bearing Housing
4.	Bearing Spacer Collar (Outer)
5.	Lip Seal
6.	Ball Bearing
7.	Bearing Housing
8.	Bearing Spacer Collar (Inner)
11.	Ring Half Round
12.	Grease Fitting
19.	Mechanical Seal
25.	Bracket Bushing
27.	Bracket
28.	Capscrew for Bracket
29.	Bracket Gasket
30.	Pipe Plug
31.	Casing
35.	Head Gasket
36.	Rotor and Shaft
37.	Idler
38.	Idler Bushing
39.	Idler Pin
40.	Head
43.	Capscrew for plain or valve type Head
46.	Capscrew for valve
45.	Relief valve Gasket
47.	Relief valve

NOTE:  
This is only a general view, not recommended to order spare parts.

# MATERIALS OF CONSTRUCTION

Bracket	Casing	Head	Rotor **	Idler **	Idler Pin/ Rotor Shaft
Cast Iron	Carbon Steel				

Bushings	Packing	Mechanical Seal	Relief Valve
Bronze / Carbon Graphite	Teflon Graphite	Buna / Viton (optional)	Iron

\*\* Depends on operating conditions material can be changed to carbon steel.

# GENERAL OPERATING DATA

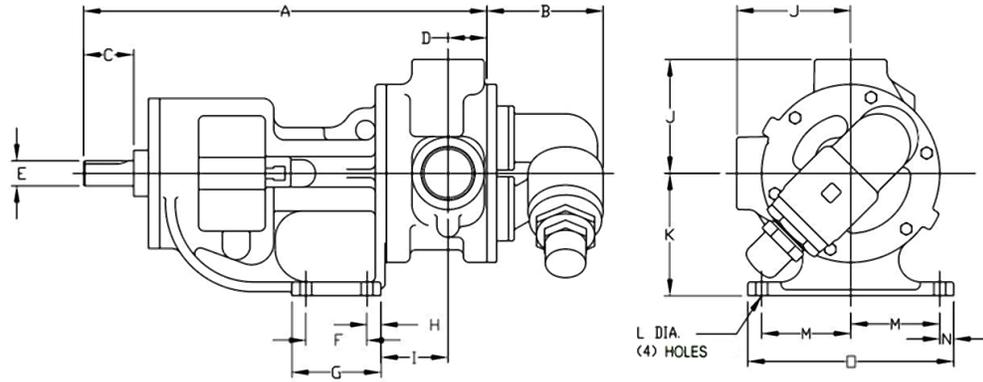
Based on 750 SSU and S.G. 1.0

	REI-H	REI-HL	REI-AK	REI-AL
Port Size (in)	1 ½	1 ½	2	2
Flow (GPM)	17	32	54	72
Discharge Pressure (PSI)	200	200	200	200
Speed (RPM)	1750	1750	1750	1750

	REI-K	REI-KK	REI-L / REI-LQ	REI-LL
Port Size (in)	2	2	2 / 2 ½	3
Flow (GPM)	79	105	146	149
Discharge Pressure (PSI)	200	200	200	200
Speed (RPM)	780	780	640	520

	REI-LS	REI-Q	REI-QS
Port Size (in)	3	4	6
Flow (GPM)	209 / 137	300 / 200	470 / 315
Discharge Pressure (PSI)	150 / 200	150 / 200	150 / 200
Speed (RPM)	640 / 420	520 / 350	520 / 350

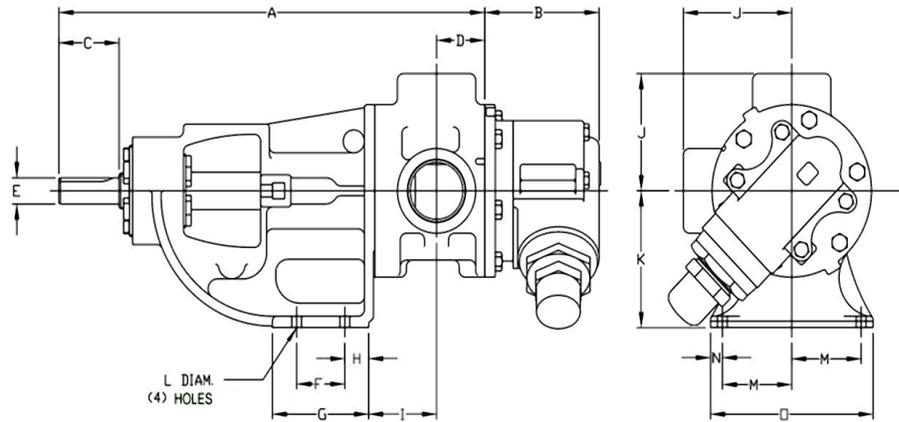
# DIMENSIONS



Dimensional Drawing (REI-H, REI-HL, REI-K, REI-KK, REI-L). Dimensions in inches

Model	A	B	C	D	E (DIA)	E (keyway)	F	G
REI-H	13.25	2.85	1.62	1.19	0.75	0.19 x 0.09	2.25	3.5
REI-HL	13.25	2.85	1.62	1.19	0.75	0.19 x 0.09	2.25	3.5
REI-K	18.12	5.25	2.25	1.75	1.125	0.25 x 0.12	2.75	4.0
REI-KK	18.12	5.25	2.25	1.75	1.125	0.25 x 0.12	2.75	4.0
REI-L	19.62	5.43	2.25	1.75	1.125	0.25 x 0.12	4.0	5.38

Model	H	I	J	K	L	M	N	O
REI-H	0.62	3.38	3.0	3.5	0.47	2.75	0.62	6.75
REI-HL	0.62	3.38	3.0	3.5	0.47	2.75	0.62	6.75
REI-K	0.62	3.0	5.12	5.5	0.53	4.0	0.62	9.25
REI-KK	0.62	3.0	5.12	5.5	0.53	4.0	0.62	9.25
REI-L	0.62	3.38	6.5	7.0	0.53	4.38	0.62	10.0

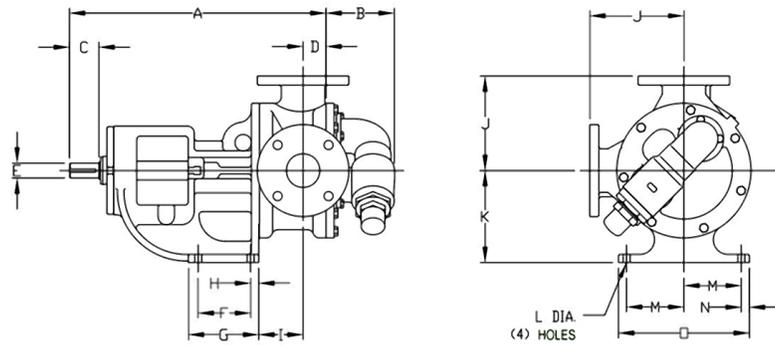


Dimensional Drawing (REI-AK, REI-AL). Dimensions in inches

Model	A	B	C	D	E (DIA)	E (keyway)	F	G
REI-AK	17.68	4.8	2.5	2.0	1.0	0.25 x 0.12	2.0	4.0
REI-AL	17.68	4.8	2.5	2.0	1.0	0.25 x 0.12	2.0	4.0

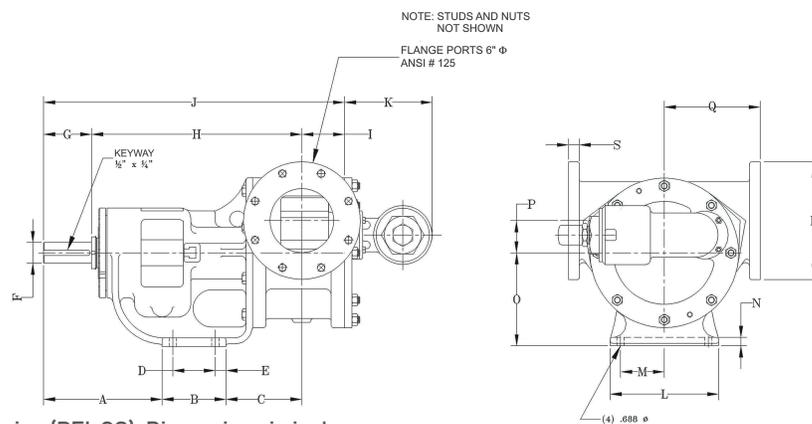
Model	H	I	J	K	L	M	N	O
REI-AK	1.0	2.81	4.5	5.25	0.41	2.88	0.5	6.75
REI-AL	1.0	2.81	4.5	5.25	0.41	2.88	0.5	6.75



Dimensional Drawing (REI-LQ, REI-LL, REILS, REI-Q). Dimensions in inches

Model	A	B	C	D	E (DIA)	E (keyway)	F	G
REI-LQ	19.62	5.43	2.25	1.75	1.125	0.25 x 0.12	4.0	5.38
REI-LL	20.12	5.43	2.25	2.25	1.125	0.25 x 0.12	4.0	5.38
REI-LS	21.69	5.43	3.5	2.44	1.44	0.38 x 0.19	4.0	5.38
REI-Q	26.75	8.25	4.5	3.0	1.94	0.50 x 0.25	4.0	6.0

Model	H	I	J	K	L	M	N	O
REI-LQ	0.62	3.38	7.19	7.0	0.53	4.38	0.62	10.0
REI-LL	0.62	3.38	7.19	7.0	0.53	4.38	0.62	10.0
REI-LS	0.62	4.75	7.19	7.0	0.53	4.38	0.62	10.0
REI-Q	1.0	6.62	8.25	8.75	0.69	4.12	0.75	10.0



Dimensional Drawing (REI-QS). Dimensions in inches

Model	A	B	C	D	E	F	G	H	I	J
REI-QS	11.13	6.00	7.12	4.00	1.00	1.93	4.50	19.75	4.00	28.25

Model	K	L	M	N	O	P	Q	R	S
REI-QS	8.25	10.00	4.12	0.80	8.75	3.00	9.00	11.00	1.0

# JACKETED REI-JKT SERIES

## FEATURES

- 1.- Same characteristics as the standard REI series pumps plus the addition of the jacket on bracket and jacket on head.
- 2.- Jacketed pump provide a cavity, or jacket, on the external wall of the pump through which steam or heat transfer liquid can be passed to control the temperature of the fluid in the pump.
- 3.- Without relief valve.
- 4- Main applications: Include “melting ambient temperature solids like asphalt which solidify in the pump when it cools, and maintaining precise temperature control in processes like manufacturing polymers and epoxy resins among other applications in which a temperature control is necessary.



## MATERIALS OF CONSTRUCTION

Jacketed Bracket	Casing	Jacketed Head	Rotor **	Idler **	Idler Pin/ Rotor Shaft
Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Carbon Steel
Bushings		Packing	Mechanical Seal		
Bronze / Carbon Graphite		Teflon Graphite	Buna / Viton (optional)		

\*\* Depends on operating conditions material can be changed to carbon steel.

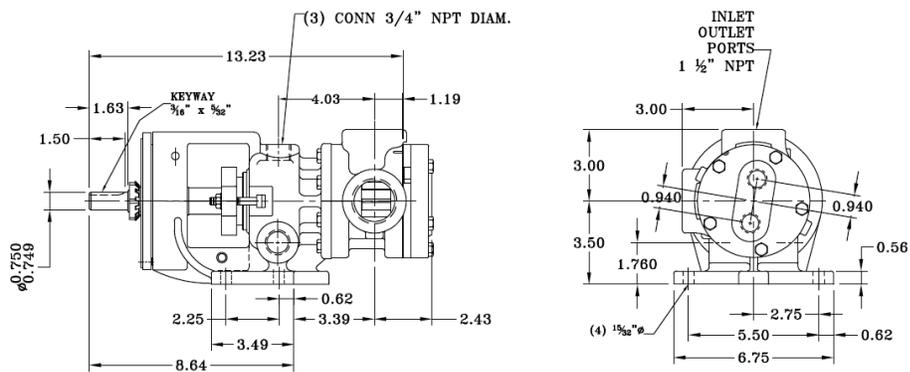
# GENERAL OPERATING DATA

Based on 750 SSU and S.G. 1.0

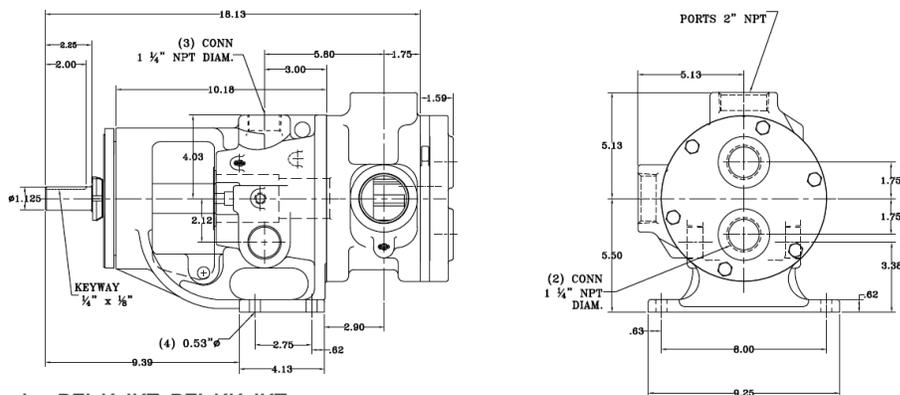
	REI-H JKT	REI-HL JKT	REI-K JKT	REI-KK JKT
Port Size (in)	1 ½	1 ½	2	2
Flow (GPM)	17	32	79	105
Discharge Pressure (PSI)	200	200	200	200
Speed (RPM)	1750	1750	780	780

	EI-L / EI-LQ JKT	EI-LL JKT	EI-Q JKT	EI-QS JKT
Port Size (in)	2 / 2 ½	3	4	6
Flow (GPM)	146	149	300 / 200	470 / 315
Discharge Pressure (PSI)	200	200	150 / 200	150 / 200
Speed (RPM)	640	520	520 / 350	520 / 350

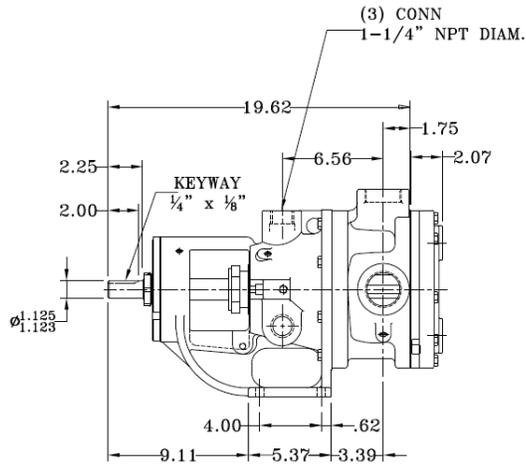
## DIMENSIONS



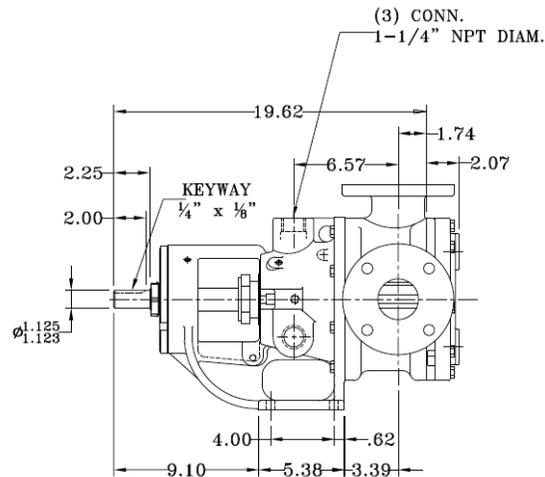
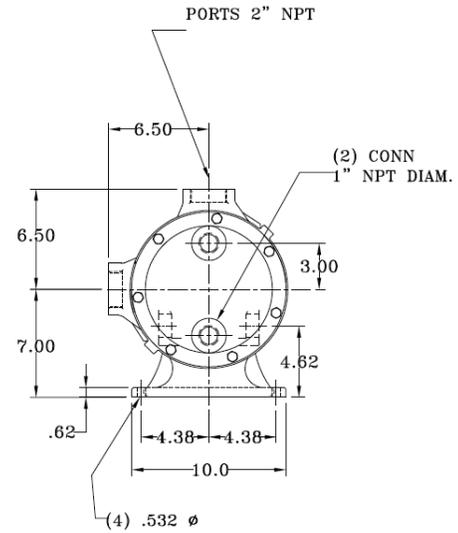
Dimensional Drawing REI-H JKT, REI-HL JKT



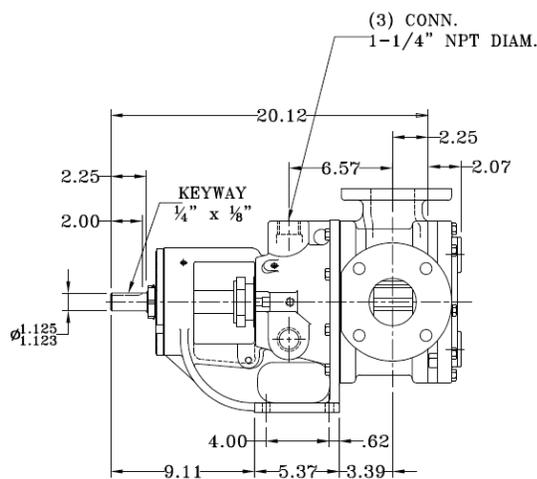
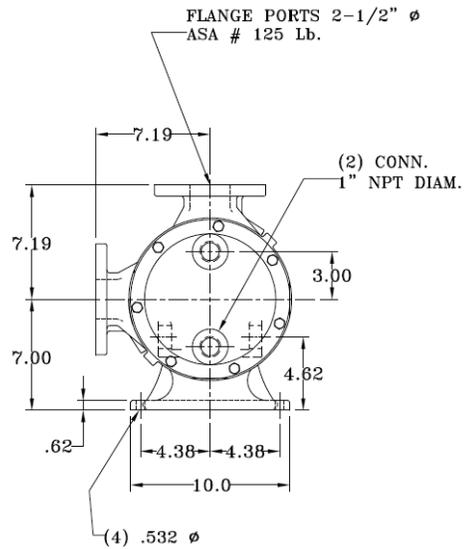
Dimensional Drawing REI-K JKT, REI-KK JKT



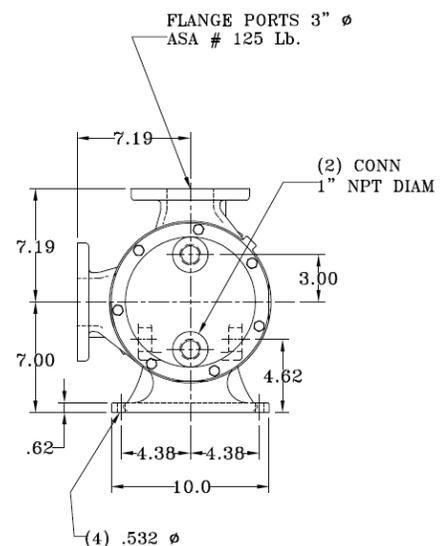
Dimensional Drawing REI-L JKT

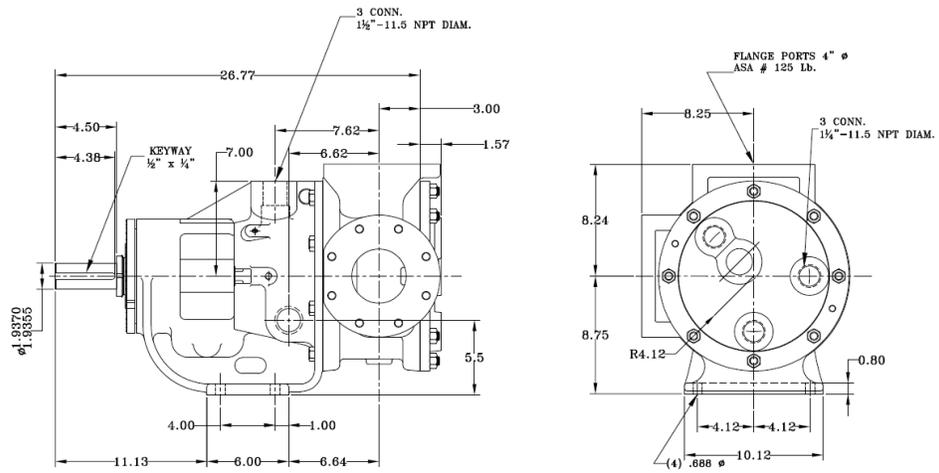


Dimensional Drawing REI-LQ JKT

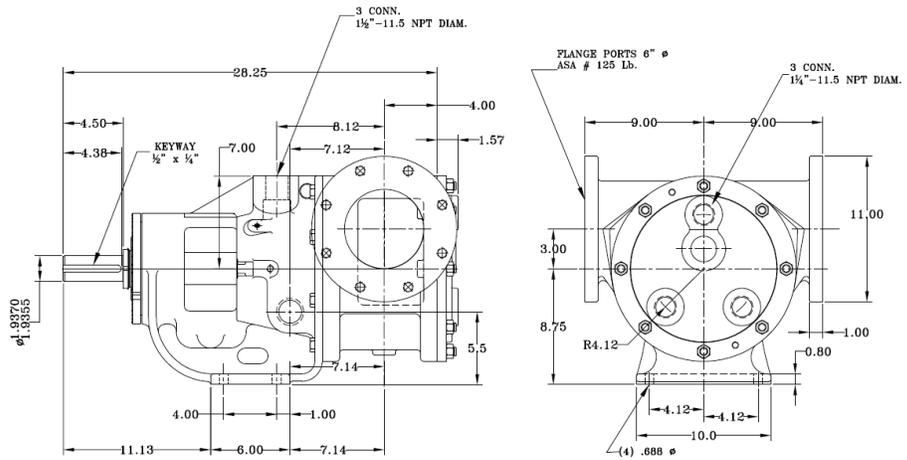


Dimensional Drawing REI-LL JKT





Dimensional Drawing REI-Q JKT



Dimensional Drawing REI-QS JKT

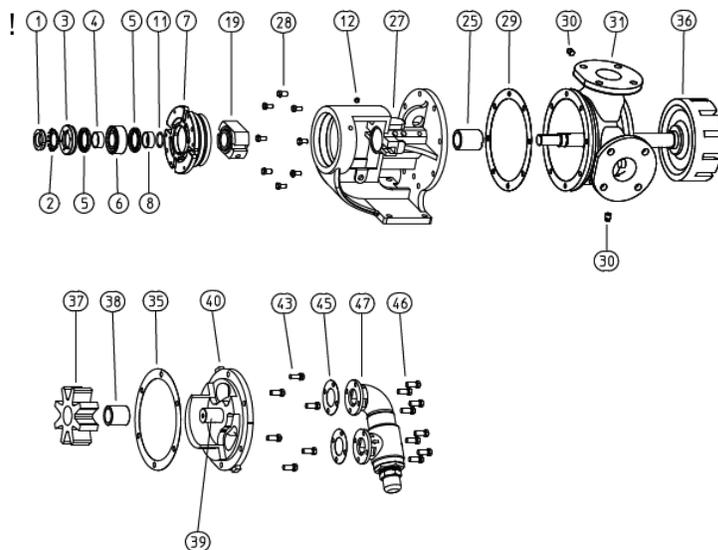
# REI-SS SERIES

Stainless Steel Construction

## FEATURES

- 1.- The stuffing box on all sizes accepts packing, component single mechanical seals, or cartridge seals without modifications.
- 2.- Bearing housing provides easy rotor end clearance adjustment to compensate for viscosity or wear.
- 3.- One-piece Bracket minimizes deflection on shaft.
- 4.- Positive Displacement, Internal Gear pumping principle.
- 5.- Low maintenance cost.
- 6.- Main applications: Same features as REI-Series but directed to more applications.

## GENERAL EXPLODED VIEW



ITEM	DESCRIPTION
1.	Locknut
2.	Lockwasher
3.	End Cap for Bearing Housing
4.	Bearing Spacer Collar
5.	Lip Seal
6.	Ball Bearing
7.	Bearing Housing
8.	Bearing Spacer Collar
11.	Ring Half Round
12.	Grease Fitting
19.	Mechanical Seal
25.	Bracket Bushing
27.	Bracket
28.	Capscrew for Bracket
29.	Bracket Gasket
30.	Pipe Plug
31.	Casing
35.	Head Gasket
36.	Rotor and Shaft
37.	Idler
38.	Idler Bushing
39.	Idler Pin
40.	Head
43.	Capscrew for head
45.	Relief valve Gasket
46.	Capscrew for valve
47.	Relief valve

# MATERIALS OF CONSTRUCTION

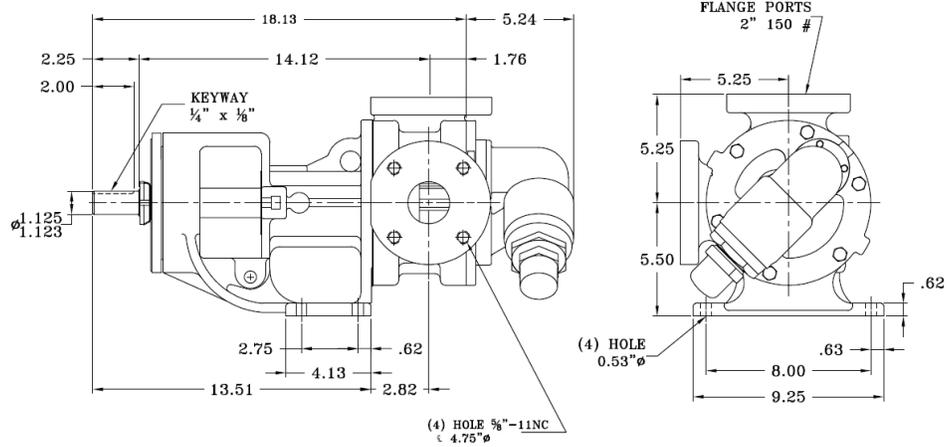
Bracket	Casing	Head / Relief Valve	Rotor	Idler	Idler Pin / Rotor Shaft
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Bushings		Packing	Mechanical Seal		
Carbon Graphite		Teflon Graphite	Teflon (optional)		

# GENERAL OPERATING DATA

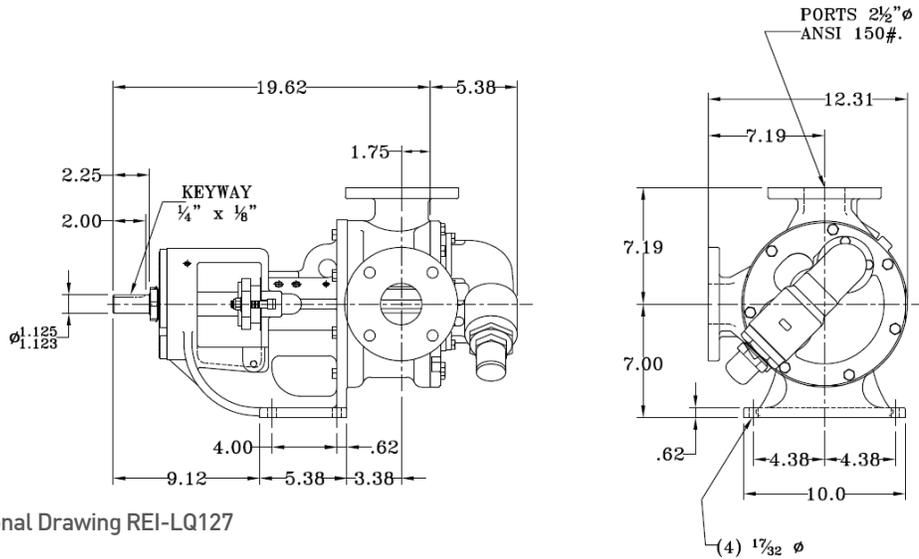
Based on viscosity of 750 SSU considering the flow and 100 SSU considering discharge pressure. S.G. 1.0

	EI-K127A	EI-KK127A	EI-LQ127A	EI-LL127A
Ports (in)	2	2	2½	3
Flow (GPM)	40	55	87	115
Discharge Pressure (PSI)	100	100	100	100
Speed (RPM)	400	400	420	420

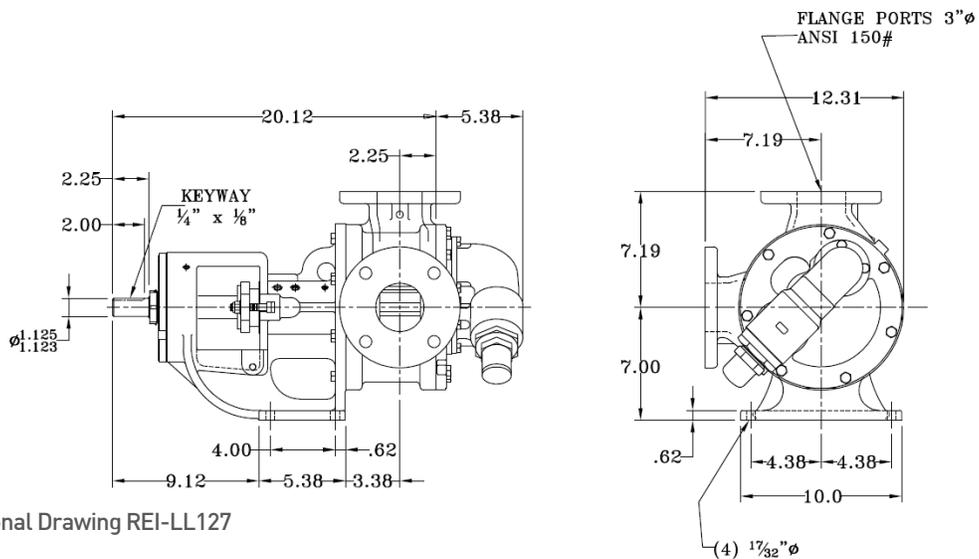
# DIMENSIONS



Dimensional Drawing REI-K127, REI-KK127

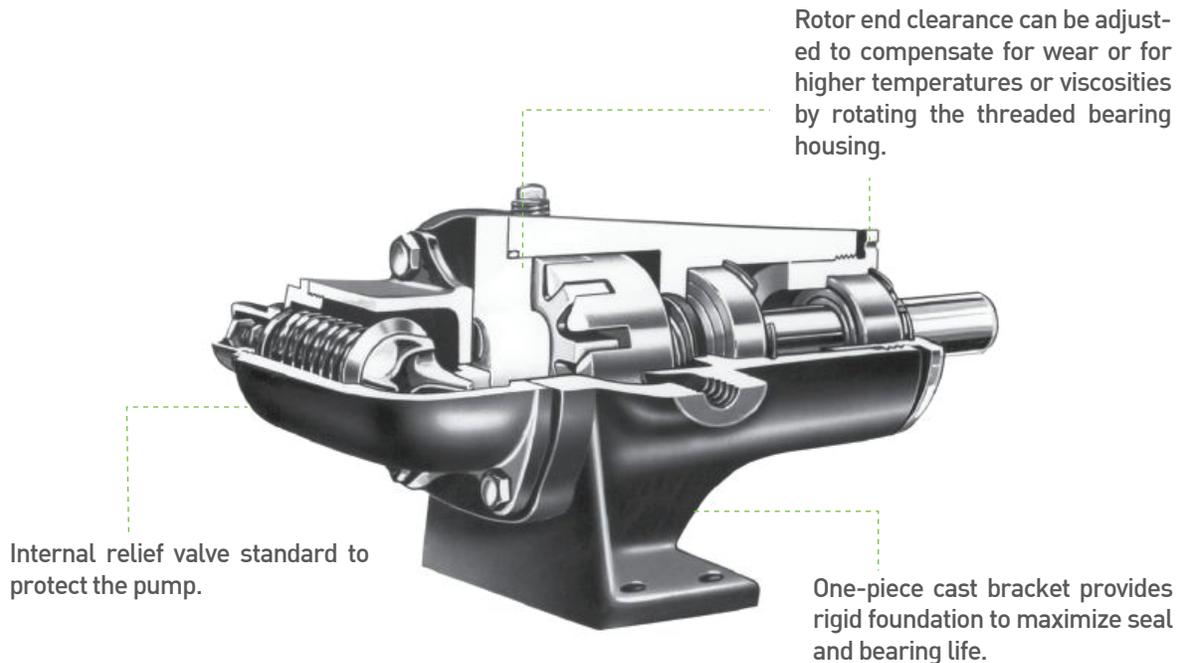


Dimensional Drawing REI-LQ127



Dimensional Drawing REI-LL127

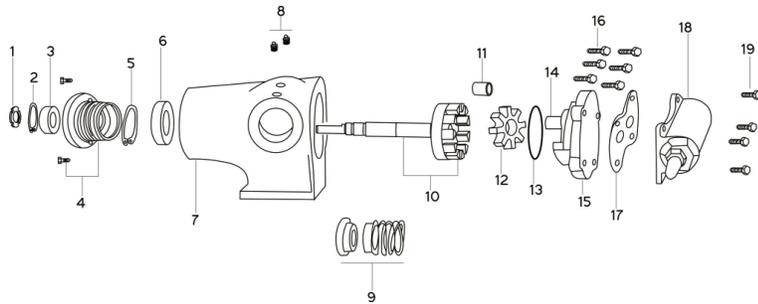
# REI-4195 SERIES



## FEATURES

1. All sizes of REI-4195 pumps are furnished with single mechanical seal.
- 2.- The smaller size pumps (REI-GG4195, REI-HL4195 and REI-HJ4195) can be directly connected to either 1800 or 1200 RPM motors. The rest of the sizes can be directly connected to 1200 RPM motors (Depending on operating conditions and also 50 Hz speeds).
- 3.- Main applications: These pumps are built to continuous or intermittent duty for such applications as circulating, transferring, or service in general industrial, petroleum uses.

# GENERAL EXPLODED VIEW



ITEM	DESCRIPTION
1.	Locknut
2.	Snap Ring, Outer
3.	Ball Bearing, Outer
4.	Bearing Housing with Setscrews
5.	Snap Ring, Inner
6.	Ball Bearing, Inner
7.	Casing
8.	Pipe Plug
9.	Mechanical Seal
10.	Rotor and Shaft
11.	Idler Bushing
12.	Idler and Bushing
13.	O-Ring Gasket for Head
14.	Idler Pin, Plain
15.	Head and plain Idler Pin
16.	Capscrew for Plain head
17.	Relief Valve Gasket
18.	Internal Relief Valve
19.	Capscrew for Valve

# MATERIALS OF CONSTRUCTION

Casing	Head	Rotor **	Idler **	Idler Pin/ Rotor Shaft	Bushings	Mechanical Seal	Relief Valve
Cast Iron	Cast Iron	Cast Iron	Cast Iron	Carbon Steel	Carbon Graphite	Buna / Viton Optional	Iron

\*\* Depends on model and/or operating conditions material can be changed to carbon steel.

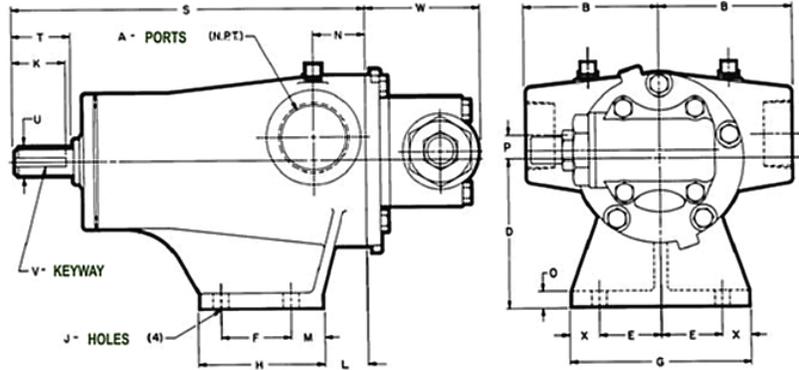
# GENERAL OPERATING DATA

Based on 100 SSU and S.G. 1.0

	REI-GG4195	REI-HJ4195	REI-HL4195
Port Size (in)	1	1 ½	1 ½
Flow (GPM)	10	20	30
Pressure (PSI)	100	100	100
Speed (RPM)	1800	1800	1800

	REI-AS4195	REI-AK4195	REI-AL4195
Port Size (in)	2 ½	2 ½	3
Flow (GPM)	35	50	75
Pressure (PSI)	100	100	100
Speed (RPM)	1200	1200	1200

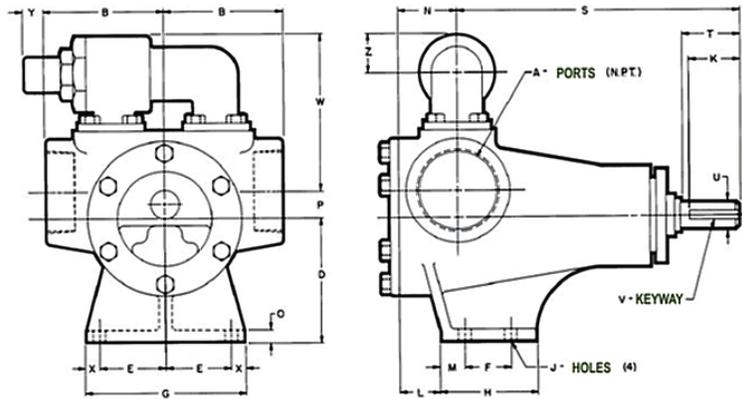
# DIMENSIONS



Dimensional Drawing REI-GG4195, REI-HJ4195, REI-HL4195. Dimensions in inches

Model	A	B	D	E	F	G	H	J	K	L
REI-GG4195	1	2.75	2.75	1.62	1.31	4.0	2.44	0.34	0.94	0.03
REI-HJ4195	1 ½	3.75	4.12	1.75	2.0	5.0	3.5	0.41	1.5	1.25
REI-HL4195	1 ½	3.75	4.12	1.75	2.0	5.0	3.5	0.41	1.5	1.25

Model	M	N	O	P	S	T	U	V	W	X
REI-GG4195	0.66	1.21	0.31	0.62	7.31	1.12	0.5	FLAT	2.66	0.38
REI-HJ4195	0.88	1.5	0.44	0.62	10.0	1.62	0.75	0.19 x 0.09	3.28	0.75
REI-HL4195	0.88	1.5	0.44	0.62	10.0	1.62	0.75	0.19 x 0.09	3.28	0.75



Dimensional Drawings REI-AS4195, REI-AK4195, REI-AL4195. Dimensions in inches

Model	A	B	D	E	F	G	H	J	K	L	M
REI-AS4195	2 ½	5.0	5.25	2.88	2.0	6.75	4.0	0.41	2.25	1.25	1.0
REI-AK4195	2 ½	5.0	5.25	2.88	2.0	6.75	4.0	0.41	2.25	1.25	1.0
REI-AL4195	3	5.0	5.25	2.88	2.0	6.75	4.0	0.41	2.25	1.75	1.0

Model	N	O	P	S	T	U	V	W	X	Y	Z
REI-AS4195	2.0	0.44	1.12	12.12	2.5	1.0	0.25 x 0.12	7.0	0.5	1.0	1.72
REI-AK4195	2.0	0.44	1.12	12.12	2.5	1.0	0.25 x 0.12	7.0	0.5	1.0	1.72
REI-AL4195	2.5	0.44	1.12	12.12	2.5	1.0	0.25 x 0.12	7.0	0.5	1.0	1.72



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